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**ART 34 AMDT****CLAIMS**

1. A method of bonding two objects together, one of  
5 which has a polymer surface and the other has an  
electrically conductive or semiconductive surface,  
which method is characterized in that it comprises:
  - a) the electrografting of an organic film onto  
the conductive or semiconductive surface; and then
  - 10 b) an operation of bonding the polymer surface  
to the conductive or semiconductive surface thus  
grafted.
2. The method as claimed in claim 1, characterized in  
15 that the electrografting of the organic film is  
electroinitiated grafting.
3. The method as claimed in claim 2, characterized in  
that the organic film is a polymer film.  
20
4. The method as claimed in claim 3, characterized in  
that the polymer film is obtained from monomers and/or  
prepolymers that are partly or completely  
functionalized by vinyl groups.  
25
5. The method as claimed in claim 4, characterized in  
that the polymer film is obtained from a vinyl monomer  
chosen from acrylonitrile, methacrylonitrile, acrylates  
and methacrylates, acrylamides and methacrylamides,  
30 cyanoacrylates, acrylic acid and methacrylic acid,  
styrene, vinyl halides, N-vinylpyrrolidone,  
2-vinylpyridine, 4-vinylpyridine and vinyl-terminated  
telechelic compounds.

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6. The method as claimed in claim 3, characterized in that the polymer film is obtained from monomers and/or prepolymers that are partly or completely functionalized by cyclic groups that can be cleaved by  
5 nucleophilic or electrophilic attack.

7. The method as claimed in claim 2, characterized in that the organic film is obtained from diazonium, sulfonium, phosphonium or iodonium salts, or mixtures  
10 thereof.

8. The method as claimed in any one of the preceding claims, characterized in that the bonding operation consists of hotmelt bonding or cold bonding or a  
15 combination of the two.

9. The method as claimed in claim 8, characterized in that the cold bonding is carried out by means of a substance capable of dissolving or swelling the polymer  
20 surface to be bonded and the organic film electrografted onto the conductive or semiconductive surface.

10. The method as claimed in any one of the preceding  
25 claims, characterized in that the polymer constituting the polymer surface is chosen from polyethylenes, polypropylenes, polystyrenes, polyacrylonitriles, polysiloxanes, polyesters, polyorthoesters, polycaprolactones, polybutyrolactones, polyacrylics,  
30 polymethacrylics, polyacrylamides, epoxide resins, copolymers thereof and blends thereof.

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11. The method as claimed in any one of the preceding claims, characterized in that the polymer constituting the polymer surface is a hotmelt polymer.
- 5 12. The method as claimed in any one of the preceding claims, characterized in that the polymer surface is a polymer film coating a conductive or semiconductive material.
- 10 13. The application of the method as defined in any one of claims 1 to 12 to the manufacture or renovation of composites intended for the aerospace, aeronautical, automotive, biomedical, microelectronics and microsystems industries.
- 15 14. The application of the method as defined in any one of claims 1 to 12 to the manufacture of implantable surgical and medical instruments.
- 20 15. The application of the method as defined in any one of claims 1 to 12 to the assembly of sensitive components of microsystems or to the packaging of microsystems.
- 25 16. A structure comprising two objects, one of which has an electrically conductive or semiconductive surface and the other has a polymer surface, these surfaces being bonded to each other via an organic film with a thickness of less than 1  $\mu\text{m}$ .